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RE: FHWA Docket No. FHWA-2001-11130—Work Zone Safety

The Associated general Contractors of America (AGC) submits the comments below to the Federal Highway Administration (FHWA) on improvements that can be made to its regulations on Traffic Safety in Highway and Street Work Zones.

Generally AGC's comments will address those questions in the Advanced Notice of Proposed Rulemaking (ANPRM) that have direct implications for the highway construction contractors and for worker safety.

1. Should there be a National policy to promote improved mobility and safety in highway construction and maintenance? If so, should the National policy be incorporated into the regulation or issued separately as guidance that outlines guidelines and best practices for implementation?

AGC of America Response:
Yes there should be a national policy on work zone safety and mobility that should be implemented through the regulations. However, these two issues should not be given equal weight. Motorist convenience does not compare with the lives of workers and motorists. Safety should be the number one consideration in a national policy and should be given the greatest weight. In specific cases where improved mobility through a work zone can be shown to contribute to worker and motorist safety then it can be given higher priority.

Three key issues should be addressed in the national policy: positive barrier separation, work zone traffic enforcement and public awareness and communication.

Policy guidance should be developed by FHWA on the use of positive separation in work zones. States should be directed to use positive barriers on high risk projects and funding should be made available to encourage their use.

A key element in work zone safety is impacting the attitudes of drivers. FHWA's national policy should look to changing driver behavior in work zones rather than attempting to design work

zones to meet or accommodate driver attitudes. Driver attitudes regarding drinking and driving, seat belt use and motor cyclist helmet use have been altered by aggressive National awareness campaigns, laws and strict enforcement. This has resulted in fewer deaths related to these causes. This same type of approach should be taken as it relates to work zone safety. Driver's eductaion programs shpuld also be utilized in this effort.

The FHWA, as the agency with engineering expertise should be the lead agency to develop the national policy and should include input from state DOTs and the construction industry. State DOTs, in conjunction with their construction industry partners, should have the primary role in implementing the national policy. Third party agencies, such as the Occupational Safety and Health Administration (OSHA), do not have the engineering expertise to have a role in work zone traffic control design and implementation and should not be involved.

The national policy should be implemented through regulation so that there is no misunderstanding of its intent, however, there should be enough flexibility to allow DOTs the room to be creative in addressing work zone safety.

2. Are the current provisions of 23 CFR 630, subpart J adequate to meet the mobility and safety challenges of road construction and maintenance projects encountered at all stages of project evolution? If they are not adequate, what are the provisions and/or sections that need to be enhanced and/or modified to ensure mobility and safety in and around work zones?

AGC of America Response:
Improvements can and should be made in 23 CFR 630, subpart J to enhance worker safety. Specific recommendations will be discussed in other parts of the comments. It should be pointed out, however, that many of the elements currently in subpart J are not generally being implemented by recipients. For example, contractors would like to have more input into traffic control plans. The regulations generally permit this but few states actually allow this input. It is recommended that the regulation allow the contractor to submit, post bid, a work zone safety engineering proposal to alter the traffic control plan (TCP) contained in the plans and that the bid price be adjusted, according to the unit prices bid, to reflect the contractor proposed changes, after they have been adopted by the DOT.

The regulation also calls for the plans, specifications and estimates (P,S&Es) to include unit pay items for traffic control devices. Again, many states are not using unit prices for safety items and this is detrimental to worker safety. The regulation should more emphatically make work zone safety devices contract pay items.

The regulations should establish parameters for the use of positive barriers between the traveling public and the workers. Payment for barricades should be a contract pay item. The use of high visibility garments by employees exposed to or working adjacent to traffic should be encouraged when appropriate.

3. Should work zone regulations be stratified to reflect varying levels and durations of risk to road users and workers, and disruptions to traffic? What would be the most appropriate stratification factors (e.g., duration, length, lanes affected, Average Daily Traffic (ADT), road classification, expected capacity reduction, potential impacts on local network and businesses)?

AGC of America Response:

Yes, work zones should be classified into different categories depending on the level of risk to the workers and motorists. Although, no two work zones are the same, even within these classifications, certain factors make one work zone more dangerous than another. Therefore, it is recommended that projects be classified according to specific factors. The most significant factor for worker safety is the Average Daily Traffic. Other factors that should be considered include duration of work, complexity of traffic realignment, reduced lane widths, length of project, road classification, location, night work requirements, and anticipated weather conditions.

Specific guidelines on safety for these different categories of projects should be developed. The guidelines should include policy recommendations on the use of positive barriers, speed limits, changeable message boards, the use of law enforcement officers and other enforcement devices for the different categories.

4. Currently, there are several definitions for work zone, as defined by the MUTCD, ANSI D16 (proposed), NCUTLO and NHTSA. These definitions, even though similar in basic structure and implication, differ in length and the degree of detail addressed. Should there be a common National definition for work zone to bring about uniformity? If so, what should the common National definition be?

AGC of America Response:
There should be only one definition of work zone and it should be: The work zone begins at the first warning sign indicating road work ahead and ends at the sign indicating end of road work.

5. How, if at all, are impacts to road users due to road construction and maintenance part of the management and operations considerations that are addressed in transportation plan development?

AGC of America Response:
Road user impacts during construction should be weighed against the impact on motorist in terms of safety and time lost due to congestion from not making the needed improvements. When possible, planners should attempt to schedule projects in a fashion that will have the least overall impact on traffic. This is not always possible. Full road closure, and improvements to detour routes to allow for full road closure, should be a consideration in the planning process.

6. To what extent should the metropolitan and statewide transportation planning processes address cross-cutting policy issues that may contribute to increases in project costs (for example, the use of more durable materials, life-cycle costing, complete closure of facilities, information sharing on utilities, etc.)? Is it appropriate to consider the impact of construction and maintenance projects to road users in planning for future roadway improvements at the metropolitan level? At the statewide level? At the corridor level?

AGC of America Response:
The planning process for transportation projects is already significantly overburdened, slow and cumbersome. The planning process has been growing longer each year delaying safety and mobility improvements and putting more pressure on the construction portion of the project delivery system to make up the time. This in itself has significant worker safety impacts by requiring more night work and longer daily hours. Adding new requirements to the planning process should only be considered as part of a comprehensive review and reform of the entire process with an eye towards moving projects to construction more quickly.

Life cycle costing and use of longer duration products can add significantly to project costs. Consideration of these concerns should be done in the context of the overall state transportation plan and budget.

7. What data and methods are currently available to address the above considerations? What else would be needed to support such considerations in the metropolitan and statewide transportation planning processes? At the corridor level?

AGC of America Response:
No comment on this question.

8. How can the FHWA encourage agencies to incorporate the above considerations (life-cycle cost analysis, alternative project scheduling and design strategies, etc.) in the decision-making process for evaluating alternative project designs? What are the most appropriate ways to include these considerations in project design?

AGC of America Response:
Life-cycle cost analysis and other factors that impact the durability of the constructed project should be given consideration during the planning process. However, decisions affecting the life of the project often have significant budgetary impacts. Constructability reviews by the contracting community can add significantly to developing a project design that can be built in an efficient and cost effective fashion. Constructability reviews should be encouraged.

The decision-making process for evaluating alternative project designs should include worker safety issues. Worker safety should be given priority consideration in developing the TCP. The TCP should include specific steps for mandating speed limits and other motorist restrictions, as well as enforcement of these safety measures. Full road closure during construction should be given consideration as part of the planning process.

9. Can user cost be a useful measure to assess alternative means to design and implement work zones? What weight should agencies assign to user costs as a decision-making factor in the alternatives evaluation process? Should analytical tools, such as QuickZone, \16\ QUEWZ-98, \17\ etc., be used for the evaluation of various design alternatives and their estimated impact to the public? What other impact measures (delay, speed, travel time, crashes) should agencies estimate and use for alternatives evaluation?

AGC of America Response:
User costs can be a useful consideration as part of the planning process in weighing the overall benefits that will be received by users from making the specific road improvement versus not making the improvement. The short-term inconvenience that may result from construction activity should not outweigh the long-term benefit of the project to the motoring public when doing the planning. Computer modeling that attempts to predict traffic flow during construction can be useful in predicting temporary inconvenience that the public may experience. This information can be useful in developing the least disruptive TCP for the project.

10. Given the fact that utility delays have been cited as roadblocks to efficient project delivery, what should be done to address this issue?

AGC of America Response:

Utility delays have been identified as the leading cause of time delays on highway construction projects. Correcting or improving this situation will add to expedited construction and reduced motorist delays. The ideal time to resolve utility relocation problems is before the major construction on a project begins. State DOTs are in the best position to work with utility companies to have the utilities moved. State DOTs need the authority to use monetary incentives and disincentives to encourage utilities to relocate their facilities in a timely fashion. For new utility easements, a liquidated damage clause should be incorporated to provide additional incentive for the utility to cooperate in a timely fashion when relocation is required in the future. Better coordination and communication between state DOTs and local utilities should be encouraged. Greater use of Subsurface Utility Engineering should also be encouraged.

11. The current regulation specifies the requirement for TCPs for work zones, but does not address the issues of sustained traffic management and operations, or traffic enforcement methods and partnerships. Should the scope of TCPs be expanded to include such considerations? What are the most relevant practices or technologies that should be considered in planning for traffic management, enforcement and operations? What are the most appropriate ways to facilitate the inclusion of such considerations in traffic control planning?

AGC of America Response:
In developing the TCP, worker safety should be a major element. Considerations for enforcement of speed limits and other traffic control laws should also be a major element of the TCP. Photo and radar enforcement should be used whenever possible and included as part of the TCP. New technologies for worker safety and traffic management should be considered when developing the TCP. Advance communication with the traveling public through signage, media, websites and changeable message boards should be used to keep the public informed of potential alternate routes, and what to expect in the work zone.

12. Should TCPs address the security aspects of construction of critical transportation infrastructure? Should TCPs address the security aspects of work zone activities in the vicinity of critical transportation or other critical infrastructure?

AGC of America Response:
Site security and traffic control are for the most part two separate and distinct issues. However, there may be situations where security considerations will impact traffic flow and in these cases should be built into the TCP for the project.

13. How should TCPs address ADA requirements?

AGC of America Response:
Pedestrians and other non-workers should have very limited access to highway work zones. Only where there is no alternate route for pedestrians should there be accommodation made for pedestrians in work zones. In those cases ADA considerations should be part of the TCP.

14. Should more flexibility be allowed on who develops TCPs--State DOTs, municipalities, contractors or law enforcement agencies--and how should the responsibility for developing TCPs be assigned? Should certification be required for TCP developers? How can the owners and contractors share the roles, risk and rewards in developing TCPs and implementing and operating work zones?

AGC of America Response:

The traffic control plan should be developed by the state DOT. As stated previously, contractors would like to have more input into traffic control plans, however, liability concerns can limit the contractor's willingness to recommend changes. States should be encouraged to give the contracting community an opportunity to make suggestions on the TCP prior to contracts going to bid through constructability reviews. However, this may not always be possible. It is further recommended that the regulation allow the contractor to submit, post bid, a work zone safety engineering proposal to alter the TCP contained in the plans and that the bid price be adjusted, according to the unit prices bid, to reflect the contractor proposed changes. In either case the DOT should accept and formally approve the changes in the TCP that are adopted.

Not all projects are complex enough to require that a traffic control supervisor (TCS) be involved in the TCP implementation. The TCP should specify if a TCS is required. For those projects where a TCS is required, the TCS should be properly trained and certified. Recognizing and identifying work site hazards should be part of the training process.
Certification should ensure that the TCS has demonstrated the knowledge and skill in both traffic control management and worker safety.

FHWA should encourage the use of safety incentive clauses that reward contractors for zero worker accidents. Motorist accidents are often beyond the control of the contractor but incentives for zero motorist accidents in the work zone should also be considered.

15. To ensure roadway mobility and safety and work area safety, should mobility and safety audits be required for work zones?

AGC of America Response:
Audits have the potential for improving work zone safety and mobility. It should be made clear that audits are not inspections. Rather, audits should be used to provide input into ways to improve safety and mobility. They should be performed by the engineer of record, advisory in nature and should not be punitive. Traffic control design is an engineering function to be performed by licensed engineers.

16. How can we better communicate the anticipated work zone impacts and the associated mitigation measures to the public? Who--the State, local government, contractor, or other agency--should be responsible for informing the public?

AGC of America Response:
Communication with the public concerning work zone safety concerns and traffic impacts due to construction is vital. Changing driver attitudes about work zones is the single most important factor for increasing work zone safety. State DOTs should be encouraged to have ongoing work zone awareness programs that include radio and television public awareness announcements and informational brochures, posters and other items that are distributed at truck stops, rest areas and other locations frequented by motorists.

At the project level, major road improvement projects should include a communications plan to alert motorists and recommend alternate routes. The use of informational signage and changeable message boards to keep the traveling public informed facilitates acceptance by the motorist. This is probably best managed by the DOT but should include ongoing communication with the contractor once construction has begun.

State DOTs should be encouraged to develop a web based data bank that is updated daily to inform motorists of ongoing work zones and anticipated delays that may result from the work activity.

17. Should projects with substantial disruption include a public communication plan in the project development process? If so, what should such a plan contain?

AGC of America Response:
Yes, projects that are anticipated to have major traffic impacts should have a detailed communication plan included as part of the project development. Information on the anticipated beginning and completion times, anticipated delays, detours and how to obtain more information should be publicized. Information should also emphasize the safety and mobility benefits that will be the results of the construction. FHWA should develop a model public outreach program for these types of projects to be implemented by states.

18. Should States and local transportation agencies report statistics on the characteristics of work zones (such as number of work zones, size, cost, duration, lanes affected, ADT, road classification, level of disruption and impacts on local network and businesses) to appropriate State or Federal agencies? If so, in what ways do you think this would be beneficial?

AGC of America response:
There is a need for better data on work zone crashes, injuries and fatalities but it is unclear how the statistics on the characteristics of work zones would be helpful for improving safety or mobility. How would these statistics be used? Most state DOTs are currently undermanned. Adding new administrative requirements should not be implemented without a clearly identified benefit.

19. Should States and local transportation agencies report statistics on the mobility performance of work zones? Are typical mobility measures, such as, delay, travel time, traffic volumes, speed and queue lengths appropriate to analyze work zone mobility performance? What are the top three measures that are most appropriate?

AGC of America response:
Such data could be useful in evaluating the performance of various traffic control devices and plans for use in designing future TCPs. Again we caution about adding new administrative requirements on undermanned agencies without a clearly identified benefit. FHWA needs to identify what the purpose is for collecting such data before deciding to move forward with a data collection requirement.

20. Are the currently used measures for safety (typically, crashes, fatalities and injuries) appropriate to analyze work zone performance? If not, what other measures should be considered? Are current mechanisms for collecting this information adequate? If not, how can we improve them?

AGC of America response:
The current measures for safety are adequate but the system and collection methodologies need improvement. It is recommended that the Bureau of Labor Statistics (BLS) be asked to develop a reporting category for injuries and fatalities for workers in highway work zone. Standardized reporting forms and systems for law enforcement departments need to be drafted.

Sincerely:
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